

FOCUS CONTROL SYSTEM

ABSTRACT OF THE DISCLOSURE

A process for controlling focus parameters in a lithographic process used in manufacture of microelectronic circuits. The process comprises initially providing a lithographic mask having a target mask portion containing a measurable dimension sensitive to defocus, projecting an energy beam through the target mask portion onto a first location of a substrate at a first focus setting, and lithographically forming a first target on the substrate corresponding to the first focus setting, the first target containing a measurable dimension sensitive to defocus. The process then includes projecting an energy beam through the target mask portion onto a second location of the substrate at a second focus setting, lithographically forming a second target on the substrate corresponding to the second focus setting, the second target containing a measurable dimension sensitive to defocus, and measuring the defocus sensitive dimension for each of the first and second targets on the substrate. The defocus sensitive dimension of the first and second targets are then compared and there is determined a desired focus setting of the energy beam based on the comparison of the dimensions of the first and second target. The process may be used to form focus setting targets on a semiconductor wafer for use in manufacture of microelectronic circuits.